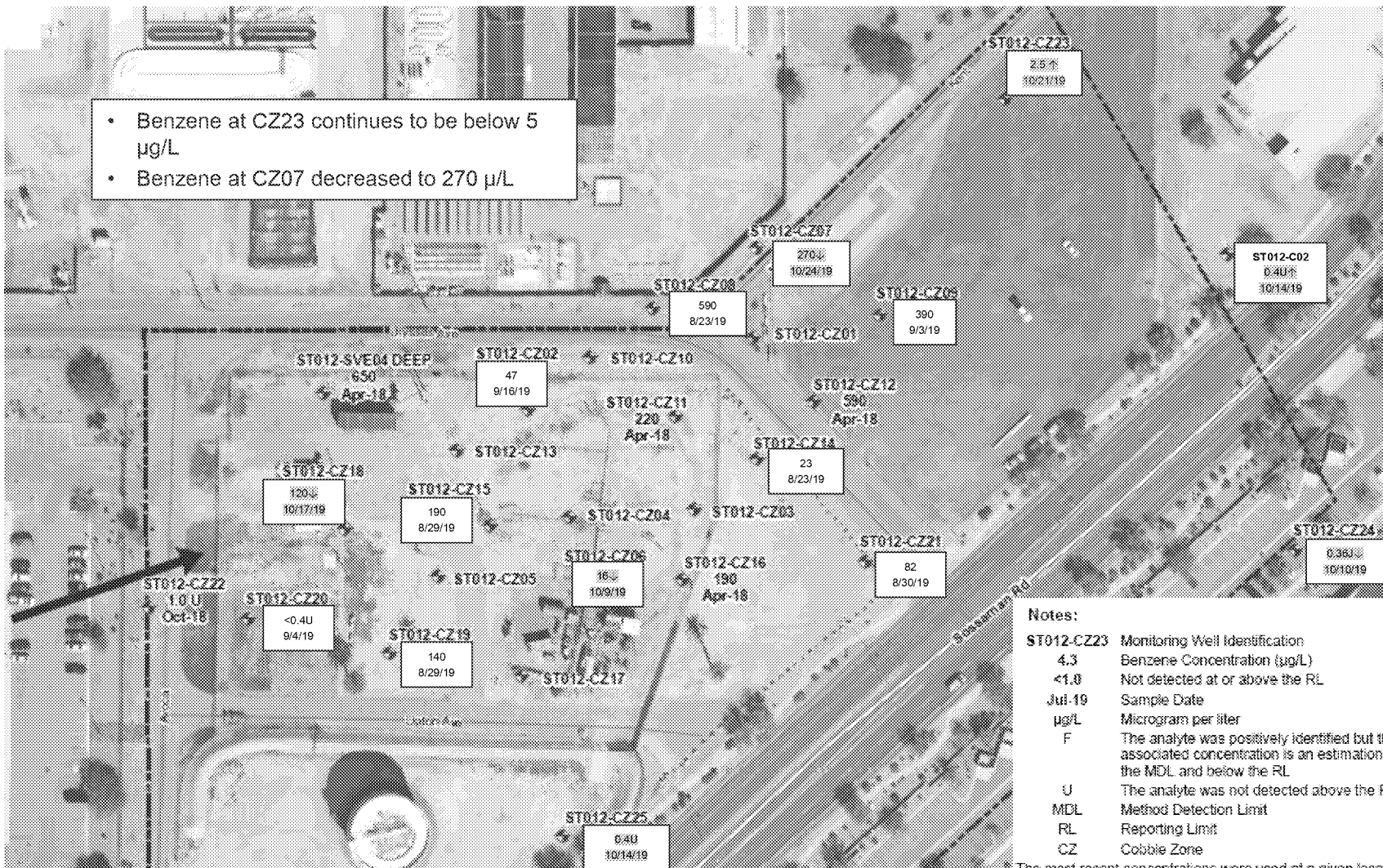




# Site ST012 Benzene ( $\mu\text{g/L}$ ) in CZ

- Benzene at CZ23 continues to be below 5  $\mu\text{g/L}$
- Benzene at CZ07 decreased to 270  $\mu\text{g/L}$



## Notes:

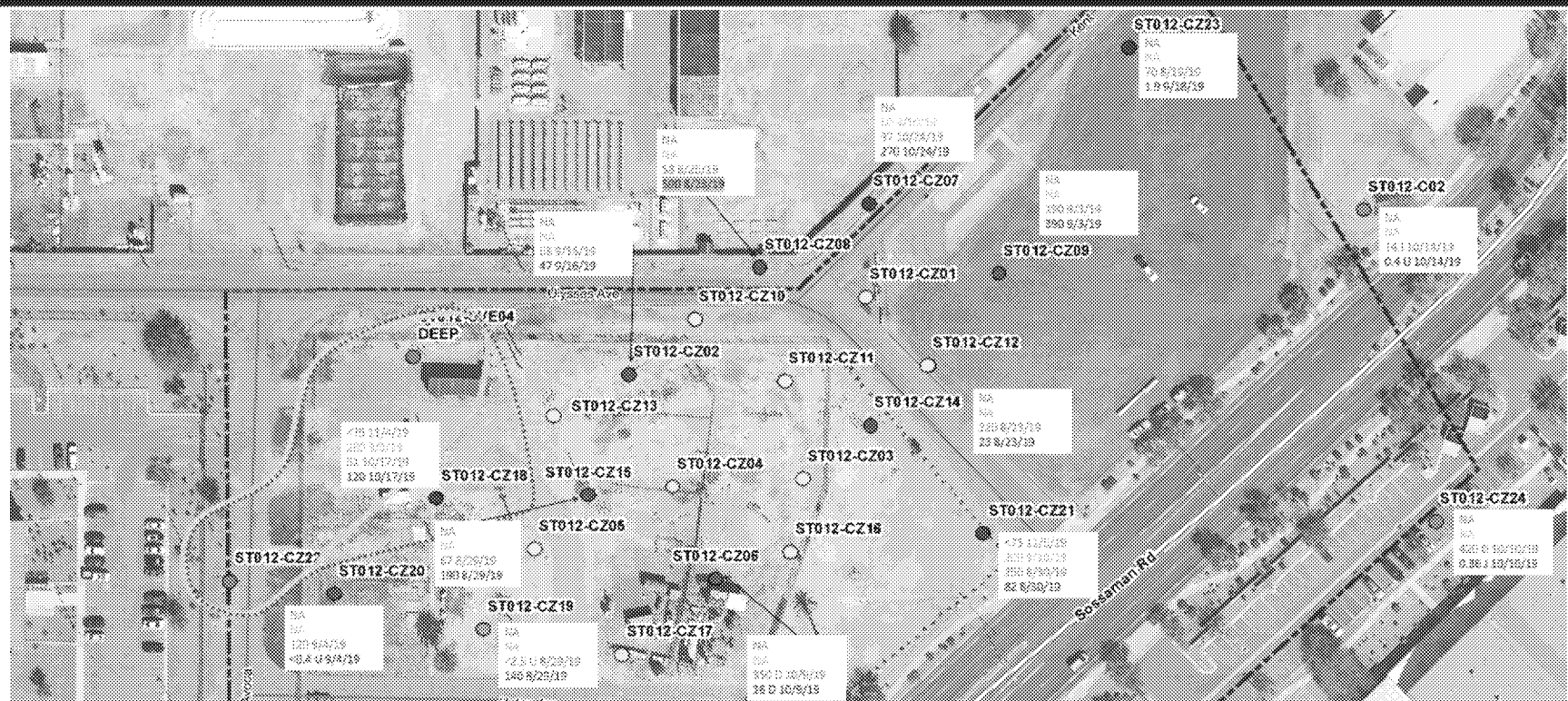
ST012-CZ23	Monitoring Well Identification
4.3	Benzene Concentration ( $\mu\text{g/L}$ )
<1.0	Not detected at or above the RL
Jul-19	Sample Date
$\mu\text{g/L}$	Microgram per liter
F	The analyte was positively identified but the associated concentration is an estimation above the MDL and below the RL
U	The analyte was not detected above the RL
MDL	Method Detection Limit
RL	Reporting Limit
CZ	Cobble Zone

The most recent concentrations were used at a given location through the end of the reporting period.

Updated since Oct BCT update (arrow indicates direction of change from previous result)



# EBR Treatment Area in CZ



## Legend

- Groundwater Monitoring Well Location Screened in the CZ
- ST012 Site Boundary
- Extraction Well
- Inactive Extraction Well
- Injection Well
- Groundwater Monitoring Well
- Perimeter Groundwater Monitoring Well
- All Other Wells
- Bart Results (cfu/mL)
- Field Sulfate Concentrations (mg/L)
- Lab Sulfate Concentrations (mg/L)
- Benzene Concentrations (ug/L)
- Benzene Concentration greater than 500ug/L

## Sulfate Concentration:

- Area of sulfate distribution by injections (generally indicated by injection locations and measure sulfate concentrations greater than 500 mg/L)
- Previous area of sulfate distribution from Oct BCT update
- D Sample was diluted for analysis
- U The compound was analyzed for but not detected above the reporting limit.
- F The analyte was detected, estimated above the method detection limit and below the reporting limit.

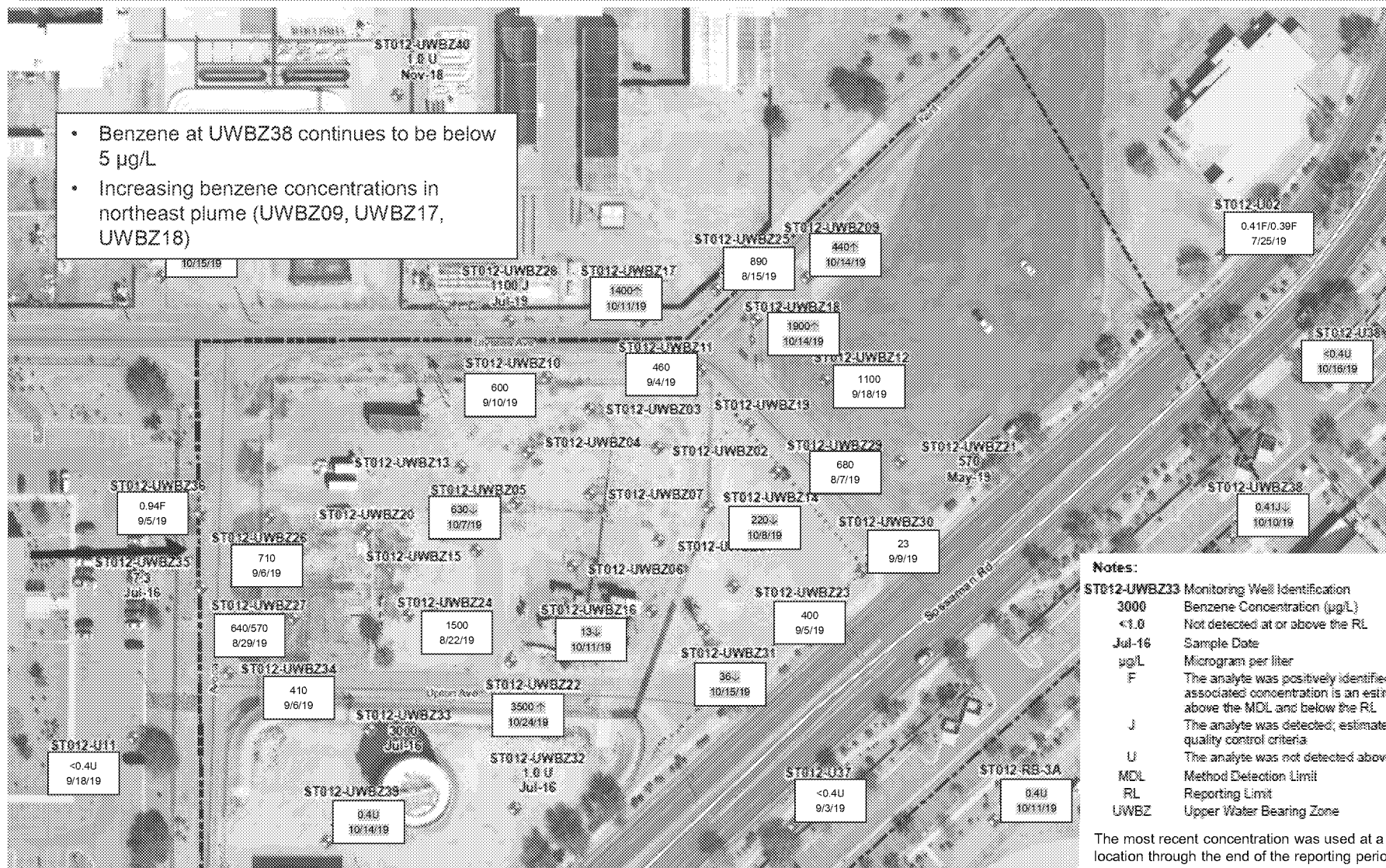
## Notes:

- ST012-CZ23 Monitoring Well Identification
- CZ Cobble Zone

- C02 and CZ20 previously tested for degrader populations by qPCR
- CZ18 sulfate concentrations went down
- Recently conducted screening test (BART) in two locations (CZ18 and CZ21). Results were low <75 cfu/ml.
- Consider sulfate injections in CZ10 to target highest concentrations in CZ07/CZ08/CZ09 area



# Site ST012 Benzene ( $\mu\text{g/L}$ ) in UWBZ



21 November 2019



# EBR Treatment Areas in UWBZ

- UWBZ24 and UWBZ31 previously tested for degrader populations by qPCR
- Recently conducted screening test (BART) in three locations (UWBZ20, UWBZ24, and UWBZ26).

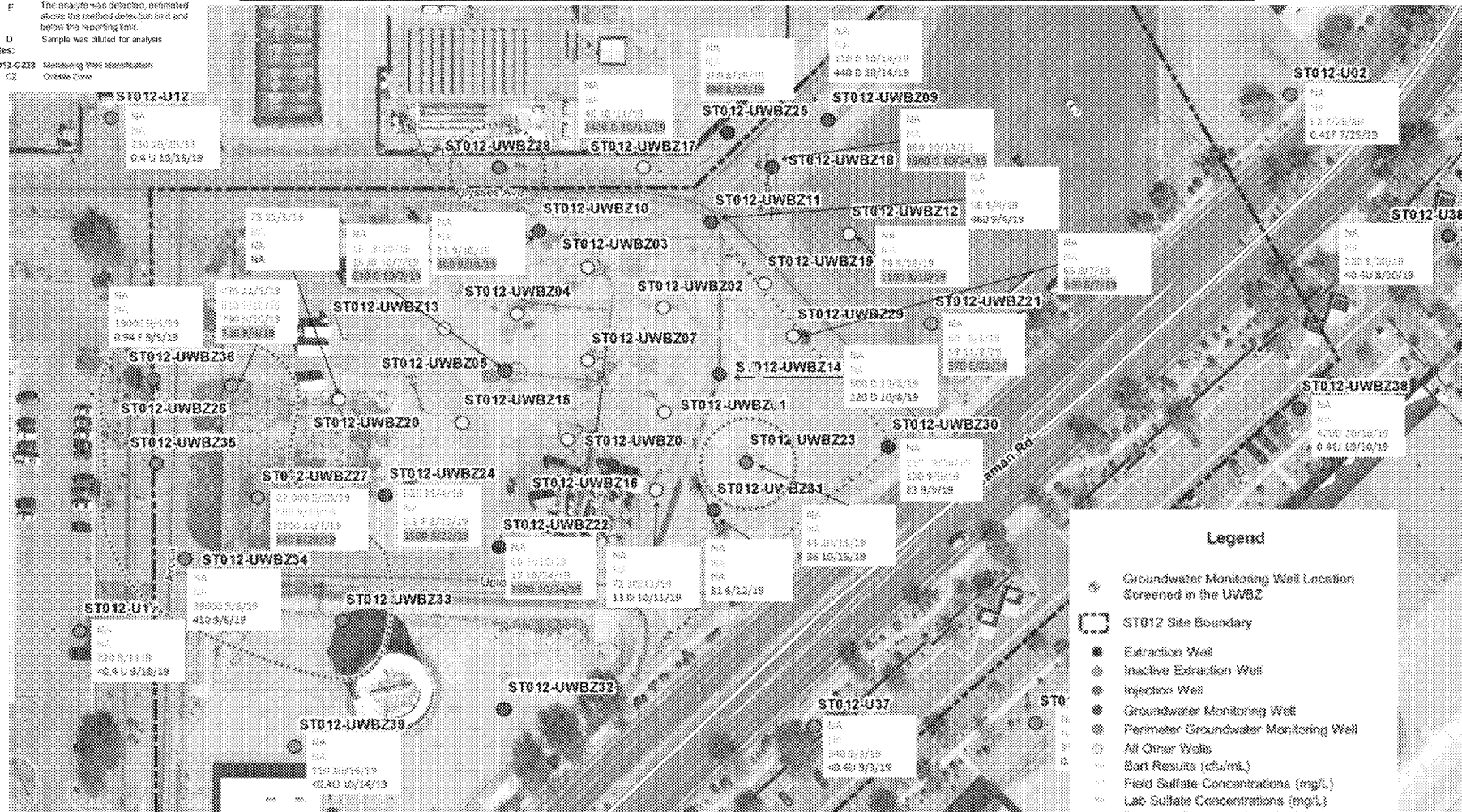
Area of sulfate distribution by injections (generally indicated by injection locations and measure sulfate concentrations greater than 500 mg/L).  
Previous area of sulfate distribution from Cid BCT update

**Data Qualifier Definitions:**

- U The compound was analyzed for but not detected above the reporting limit
- F The analyte was detected, estimated above the method detection limit and below the reporting limit.
- D Sample was diluted for analysis

**Notes:**

ST012-C223 Manufacturing Wood Identification  
C23 Cobble Zone







- 

Groundwater Monitoring Well Location  
Screened in the LSZ

ST012 Site Boundary

- Extraction Well
- Inactive Extraction Well
- Injection Well
- Groundwater Monitoring Well
- Perimeter Groundwater Monitoring Well
- All Other Wells
- Bar Results (cfu/mL)
- Field Sulfate Concentrations (mg/L)
- Lab Sulfate Concentrations (mg/L)
- Benzene Concentrations (ug/L)
- Benzene Concentration greater than 500ug/L



# Site ST012 Extraction System Performance

- No LNAPL has been recovered since extraction started up
- Extraction pumps CZ21, UWBZ25, LSZ23, LSZ43 currently down
- CZ18, UWBZ21, UWBZ26, UWBZ27, LSZ09, LSZ23, LSZ37, LSZ38, and LSZ39 turned off due to sulfate presence
- Benzene air stripper influent at 600 µg/L for October sample

